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10/590,733	12/20/2006	Ambrose Jacob Spinner Benade	3587-0126PUS1	1188
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EXAMINER				
MEHTA, HONG T				
ART UNIT		PAPER NUMBER		
1789				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/590,733

Applicant(s)

BENADE ET AL.

Examiner

HONG MEHTA

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-22,24-31 and 33-45 is/are pending in the application.
- 4a) Of the above claim(s) 20-22,24-31 and 33-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-19 and 43-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 28, 2010 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any

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inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 1, 5, 6, 9-11, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sessoms et al. (US 3,851,070) in view of Melnick (US 3,216,830) and Rudan et al. (US 5,366,754).**

6. **Regarding claim 1**, Sessoms et al. discloses a high nutritional food spread comprising (a) basestock liquid triglycerides, vegetable oils, including palm oil, peanut oil, soybean oil (col. 4, lines 32-39) in range of 40% to 68% wt. (col. 4, lines 57-58) and hardstock vegetable oils in range of 1.5% to 3% wt. (col. 3, lines 32-47) which is a total range of 40% to 71% of fats/oils; (b) soy protein (protein food source), including soy flour (col. 2, lines 31-41) in ranges of 20% to 35% (col. 3, lines 5-8); (e) sweeteners, (sweetening agent), including sucrose, dextrose, fructose, honey, and molasses in ranges of 10% to 25% wt. (col. 3, lines 31-39) and (f) flavorings in ranges of 0.2% to 1.5% wt. (col. 4, lines 62-68).

7. Sessoms et al. and the claims differ in the ranges of protein and overlapping ranges of fat/oil and flavoring which are not exact same proportions as the recited in the instant claims.

8. Rudan et al. discloses a peanut butter composition with 0% to 50% peanut flour (col. 2, lines 34-36) and protein content in range of 10% to 24% (col. 2, lines

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41-43). It would have been obvious to one of ordinary skill in the art to be motivated by Rudan's teaching to adjust the flour amount in peanut butter spread composition for desired protein content. Additionally, Sessoms recognize the ranges of protein is dependent upon the amount of protein desired to be added as a nutritional supplement (col. 3, lines 10-14); as well as amounts of flavorings depends upon the exact flavor intensity one desires (col. 4, lines, 64-69) and fat/oil amounts depend upon the suitable spreadability characteristics (col. 4, In. 60-62). It would have been obvious to one of ordinary skill in the art to use Rudan's flour range in Sessoms' nutritional food spread for a desired protein content.

9. Sessoms et al. is silent on (c) micronutrient(s) and (d) vitamin(s) within the nutritional food spread.

10. However, Melnick discloses fortification of peanut butter food spread with vitamins and minerals ('830, col. 4, lines 65-75; col. 5, lines 8-13; 21; 37-38) in total quantity of less than 1% ('830, col. 6, lines 64-68; col. 7, lines 1-15). It would have been obvious to one of ordinary skill in the art to combine to Melnick's vitamins and minerals into Sessoms' high nutritional food spread because food spreads are an excellent media for uniform distribution of added essential nutrients and providing them in a relatively stable form throughout the shelf life of the product ('830, col. 5, lines 40-44). It would have been obvious to one of ordinary skill in the art to add Melnick's vitamins and minerals to Sessoms' food spread to provide a balanced dietary nutrition in one's diet.

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11. **Regarding claim 5**, Sessoms et al. discloses hydrated soy protein may be dried in an oven. Examiner considers drying hydrated soy protein in oven to be roasting soy flour (col. 2, lines 70-72).

12. **Regarding claim 6**, Melnick discloses iodine (col. 5, lines 37-38) as mineral (micronutrient).

13. **Regarding claim 9 and 10**, Melnick discloses vitamin C in the form of ascorbic acid (col. 5, line 21).

14. **Regarding claim 11**, Sessoms et al. discloses sweeteners in form of honey or molasses (col. 3, line 38) as sugar syrup.

15. **Regarding claim 14**, Melnick discloses food spread product containing less than 4% moisture (col. 7, line 24; col. 14, claim 1, line 36). Examiner notes water content refers to moisture content, which is the quantity of water contained in material.

16. Melnick and the claim differ in that the food product is more than 7% overall water content. Melnick does not teach the exact same proportions as recited in the instant claims. However, it would have been obvious to one of ordinary skill in the art to increase the overall water content of the food product due to the variables in ingredients containing water content in the food spread formulation. It would have been obvious to one of ordinary skill in the art to increase the water content of food products for a more spreadable food product.

17. One of ordinary skill in the art at the time of the invention was made would have considered the invention to have been obvious because the compositional proportions taught by Sessoms overlap the instantly claimed proportions and

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therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art references, particularly in view of the fact that "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in the disclosed set of percentage ranges is the optimum combination of percentages", *In re Peterson*, 65 USPQ2d 1379 (CAFC 1974).

18. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sessoms et al. (US 3,851,070), Melnick (US 3,216,830) and Rudan et al. (US 5,366,754) as applied to claim 1 above and further in view of Unnithan (US 5,932,261).

19. Regarding claim 2 and 3, Sessoms et al., Melnick and Rudan et al. disclose the claimed invention as discussed above to claim 1.

20. Sessoms et al. is silent on oil comprising carotenoids, tocopherols and/or tocotrienols in cited ranges. However, Unnithan discloses food grade (col. 3, line 50) edible oil and a process of refining palm oil (col. 4, lines 52-56) with enriched natural carotene and Vitamin E (col. 2, lines 24-37). Unnithan discloses the refined palm oil with a minimum carotene content of 500 ppm and Vitamin E (tocopherols and tocotrienols) of 800 ppm (col. 3, lines 23-27; col. 4, Table 1 and Table 2).

21. It would have been obvious to one of ordinary skill in the art to use Unnithan's edible refined palm oil as Sessoms' basestock oil, including palm oil

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('070, col. 4, line 36) in the food spread product. Unnithan's edible refined palm oil has antioxidant properties of carotene and Vitamin E of Unnithan's refined oil palm oil which would enhance the nutritional and functional effect for a desired food product. It would have been obvious to combine Unnithan's edible oil with Sessoms' food spread product to obtain an enriched food product.

22. **With respect to claim 3**, Unnithan does not disclose the exact ranges in carotenoids, tocopherols and tocotrienols as cited in the instant claims. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to adjust the amounts carotenoids, tocopherols and tocotrienols because carotenoids, tocopherols and tocotrienols are known to have high antioxidant properties; therefore it would have been obvious to adjust the amounts for bioavailability for a minimum nutritional requirement in a desired in a food product.

23. Additionally, one of ordinary skill in the art at the time of the inventions was made would have considered the invitations to have been obvious because the compositional propositions taught by Unnithan overlap the instantly claimed proportions therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portions of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art references, particularly in view of the fact that "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a

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disclosed set percentage ranges are the optimum combination of percentages."

In re Peterson 65 USPQ 2d 1379 (CAFC 2003).

24. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sessoms et al. (US 3,851,070), Melnick (US 3,216,830) and Rudan et al. (US 5,366,754) as applied to claim 11 above, and further in view of McGee (On Food and Cooking: The Science and Lore of the Kitchen, 1984).

25. Regarding claim 12 and 13, Sessoms et al., Melnick and Rudan et al. disclose the claimed invention as discussed above in claim 11. Sessoms et al. discloses a honey as the sweetener which is considered a "natural" invert syrup. Honey is a mixture of fructose, glucose and sucrose, giving similar properties as invert syrups. As illustrated by McGee, invert sugar or invert syrup (pg. 655, col. 1, paragraph 2 and Table), and honey (pg. 666, Table) compositions comprise fructose, glucose and sucrose. McGee emphasizes that honey is a natural source of invert sugar (pg. 686, paragraph 1). Honey has a water content of 17% wt. (pg. 666, Table).

26. It would have been obvious to one of ordinary skill in the art to use either a sweetener ingredient of honey ("natural" invert syrup) or synthetic derived invert syrup because both syrups have similar properties as discussed above. It is well known in the art of food that invert sugar syrups have lower water activity, thus providing a longer stable shelf life of a food product, such as a food spread product

27. **Claims 7, 8, 17, 18 and 19 are rejected under 35 U.S.C. 103(a) as obvious over Sessoms et al. (US 3,851,070), Melnick (US 3,216,830) and Rudan et al. (US 5,366,754) as applied to claim 1 above and further in view of Ashmead et al. (US 4,725,427).**

28. **Regarding claim 7, 8, 17, 18, and 19,** Sessoms et al., Melnick and Rudan et al. disclose the claimed invention as discussed above in claim 1.

29. Melnick discloses iodine (col. 5, lines 37-38) as a mineral (micronutrient). Melnick is silent on micronutrients or mixtures of micronutrient comprising a blend of iron amino acid chelate, iron fumarate, zinc amino acid chelate and selenium amino acid chelate.

30. However, Ashmead et al. discloses a premix of vitamins and mineral granules compositions in foodstuff carriers (col. 4, lines 5-50). Ashmead et al. discloses an amino acid chelate mixture comprising trace minerals of zinc, manganese and iron (col. 5, lines 55-63; col. 6, lines 7-10) in the premix vitamin and mineral composition. Ashmead et al. recognized the blend of the vitamin premix and mineral, amino acid chelate mixture (col. 11, claim 1) is combined in desired proportions (col. 6, lines 22-24). Ashmead et al. is silent on the selenium amino acid chelate in the mixture. However, Ashmead et al. recognizes selenium as chelatable mineral (col. 4, lines 41-45), thus it would have been obvious to one of ordinary skill in the art to include selenium, since selenium is a known chelatable trace mineral.

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31. It would have been obvious to one of ordinary skill in the art to incorporate Ashmead's premix of vitamins and minerals including amino acid chelate mixtures into Melnick's vitamins and minerals as combined with Sessoms' spread food product. It would have been obvious to incorporate Ashmead's premix of vitamins and mineral, amino acid chelate mixture into Melnick's vitamin/mineral addition in nut spread because Ashmead's premix comprising amino acid chelate mixture increases the bioavailability of the trace minerals in the body. It would have been obvious to use Melnick's vitamins and minerals (micronutrients) supplement in food spread for a more nutritionally balanced food product for specific dietary needs.

32. **Claim 15, 16, 43, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sessoms et al. (US 3,851,070) in view of Melnick (US 3,216,830), Rudan et al. (US 5,366,754) and Unnithan (US 5,932,261) in view of McGee (On Food and Cooking: The Science and Lore of the Kitchen, 1984).**

33. **Regarding claim 15, 16, 43, 44 and 45**, Sessoms, Melnick, Rudan, and Unnithan teach the composition of oils, carotenoids, tocopherols or tocotrienols, soy flour, micronutrients, vitamins, sweeteners, and flavorings as discussed above with regard to claims 2 and 3. Sessoms et al. discloses a high nutritional food spread comprising (a) basestock liquid triglycerides, vegetable oils, including palm oil, peanut oil, soybean oil (col. 4, lines 32-39) in ranges of 40% to 68% wt. (col. 4, lines 57-58) and hardstock vegetable oils, in ranges of 1.5% to

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3% wt. (col. 3, lines 32-47) corresponds to total range of 40% to 71% of fats/oils.

Additionally, Sessoms recognize the ranges of protein is dependent upon the amount of protein desired to be added as a nutritional supplement (col. 3, lines 10-14); as well as amounts of flavorings depends upon the exact flavor intensity one desires (col. 4, lines, 64-69) and fat/oil amounts depend upon the suitable spreadability characteristics (col. 4, ln. 60-62).

34. Sessoms et al. discloses honey as the sweetener or "natural" invert syrup. Honey is a mixture of fructose, glucose and sucrose, giving similar properties as invert syrups. As illustrated by McGee, invert sugar or invert syrup (pg. 655, col. 1, paragraph 2 and Table), and honey (pg. 666, Table) compositions comprise fructose, glucose and sucrose. McGee emphasizes that honey is a natural source of invert sugar (pg. 686, paragraph 1). Honey has a water content of 17% wt. (pg. 666, Table). It would have been obvious to one of ordinary skill in the art to use either a sweetener ingredient of honey ("natural" invert syrup) or synthetic derived invert syrup because both syrups have similar properties as discussed above. It is well known in the art of food that invert sugar syrups have lower water activity, thus providing a longer stable shelf life of a food product, such as a food spread product

35. Regarding claim 43, Examiner considers the Sessoms' oil to substantially micro-encapsulated vitamins and minerals by oil. Since the vitamins and minerals are dispersed particles in a mixture comprising oils.

36. **With respect to claim 44**, Melnick discloses peanut food spread is less than 4% moisture content (col. 4, lines 34-35).

37. **With respect to claim 15, 16 and 45**, Unnithan does not disclose the exact ranges in carotenoids, tocopherols and tocotrienols as cited in the instant claims. Unnithan does not disclose the exact ranges in carotenoids, tocopherols and tocotrienols as cited in the instant claims; however it would have been obvious to one of ordinary skill in the art at the time of the invention to adjust the amounts carotenoids, tocopherols and tocotrienols because carotenoids, tocopherols and tocotrienols are known to have high antioxidants' properties; therefore it would have been obvious to one of ordinary skill in the art to adjust the amounts for bioavailability for a minimum nutritional requirement in a desired in a food product.

38. One of ordinary skill in the art at the time of the inventions was made would have considered the invitations to have been obvious because the compositional propositions taught by Unnithan overlap the instantly claimed proportions therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portions of the disclosed ranges including the instantly claimed ranges form the ranges disclosed in the prior art references, particularly in view of the fact that "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set percentage ranges are the optimum combination of percentages." *In re Peterson* 65 USPQ 2d 1379 (CAFC 2003).

Response to Arguments

39. Applicant's arguments filed October 28, 2010 have been fully considered but they are not persuasive.

40. Applicant argues the present invention has a minimum ratio of fat and/or oil content to soy flour content of 4.167:1 ($64.50/15.48 = 4.167$), and Sessom's weight ratio of basestock component to soy protein is from 0.7:1 to about 2.5:1 ('070, col. 4, ln. 50-52) and as such Sessoms et al. teaches away from the present invention.

41. Sessoms et al. discloses a high nutritional food spread comprising (a) **basestock liquid triglycerides** (col. 4, lines 32-39) in range of 40% to 68% wt. (col. 4, lines 57-58) and **hardstock vegetable oils** in range of 1.5% to 3% wt. (col. 3, lines 32-47) which is a **total range of 40% to 71% of fats/oils** which overlaps the instant claimed range of 64.50% to 99.50% fats and/or oils. Additionally, Rudan is relied upon the teaching an effective amount of protein flour content in a nutritional spread. Rudan teaches a **protein range of 10% to 24%** from a protein source from flour in a nutritional spread. Rudan teaches protein range overlaps the claimed range of 0.48% to 15.48%. Sessoms teaches a preferred working range of protein content of flour for Sessoms' particular nutritional spread invention, however Sessoms does not teach away from adjusting the protein content to obtain a desirable protein amount in the nutritional spread. Furthermore, Sessoms recognize the range of protein is dependent upon the amount of protein desired to be added as a nutritional supplement (col. 3, lines 10-14); as well as amounts of flavoring depends upon

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the exact flavor intensity one desires (col. 4, lines, 64-69) and fat/oil amounts depend upon the suitable spreadability characteristics (col. 4, ln. 60-62).

Sessoms in combination with Rudan teaches a nutritional food spread in the claimed ranges.

42. Applicant argues that one of ordinary skill in the art would not turn to a reference disclosing peanut flour when considering a reference disclosing soy flour. Given that both references teach spreads with protein sources in the form of flour, it would have been obvious to one of ordinary skill in the art to use the amount of flour of Rudan as guidance for an effective amount of flour that can be used in Sessoms. One of ordinary skill in the art would consider Rudan's teaching of protein content ranges of flour compositions for the spread composition in Sessoms because both references are in the same field of endeavor of nutritional spreads with protein contents provided in the form of flour compositions.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HONG MEHTA whose telephone number is (571)270-7093. The examiner can normally be reached on Monday thru Thursday, from 7:30 am to 4:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Htm

/Jennifer C McNeil/
Supervisory Patent Examiner, Art Unit 1784